

## **Waitaki District Council – general responses to survey comments**

### **Mandatory chlorination**

A letter was received by Council from the Ministry of Health late last year stating that councils should install 'residual treatment' on all water supplies. The only cost-effective way of achieving 'residual treatment' is by chlorinating supplies. This gives a strong indication that when a Government Regulatory body is set up to govern water supply management, chlorination of water supplies will become mandatory. It is a recommendation in the 2<sup>nd</sup> stage report into the Havelock North water supply contamination event.

### **Chlorine and plumbing fittings**

It is known that in a few instances in New Zealand, when chlorine has been introduced into an unchlorinated water supply, there has been evidence that it causes early failure of some plumbing fittings. Ohau Water (no matter what the source) is 'aggressive' and so there may have to be some pH correction prior to chlorination to reduce the corrosive effects of chlorine on fittings and pipework, if indeed it is an issue here. Two other towns in the Waitaki District have recently had chlorination introduced with minimal effect.

### **Chlorine smell and taste**

Chlorine in good quality water does not smell or taste. The better the quality of the water the chlorine is dosed into, the less chlorine has to be used. Chlorine only smells and tastes when it is doing its job or acting on organics and/or contamination in the water. Chlorine for water treatment processes is only dosed at very small levels – in the range of 0.5 – 2.0 parts per million (or 0.5ml – 2.0ml per 1000litres).

### **Safe E. coli levels**

The New Zealand Drinking Water Standards (NZDWS) have a threshold of less than 1mpn/100ml in treated drinking water. The levels of E. coli in raw water can vary, which is okay if the raw water is then treated. Surface water is known to have a higher variability of quality (both E. coli and turbidity) and therefore it generally needs more treatment steps and barriers than ground water.

### **Do we have to do this?**

In New Zealand, the Health (Drinking Water Amendment) Act requires the standards to be adhered to. For Ohau, this was meant to be by 1st July 2016. The Council passed a resolution in 2008 that supplies shall be upgraded to meet The Health (Drinking Water Amendment) Act.

### **Groundwater flow/direction**

Investigation into the direction of groundwater flow is being conducted as the next stage of the project. This will ascertain to the likelihood of the effect of the sewer pond, which is 500m away from the preferred option site, and what we could expect the water capacity and quality from the bores to be.

### **Ohau Lodge Water Supply**

The Ohau Lodge is a private supply. It does not come under Council's jurisdiction. Council (on the Ohau Lodge's behalf – and they pay for this service) samples their water supply only.

### **Point of use devices**

Filters or UV units at each house are not currently included in the NZDWS as an approved form of water treatment for a community water supply, and therefore they have not been included as an option. Rules have not been written as to how they may be compliant, and as such there is no way of proving compliance with The Health (Drinking Water Amendment) Act and/or the NZDWS.

## **Status of McKinnon Reserve**

McKinnon Reserve is zoned *Residential* in the Waitaki District Plan and does not have a specific designation under the Plan. Any work on McKinnon Reserve for water supply purposes would be 'discretionary' under the WDC Reserves Management Plan, where it is identified as a 'Local Purpose Reserve (Recreation)', as per its legal Land Title.

## **Use of McKinnon Reserve**

The option to use McKinnon Reserve is currently the most cost-effective option and has the least risk associated with it in terms of water quality and quantity, and cost escalation. The other options we had considered were more expensive and riskier to achieve. Any further options will also likely be more expensive and riskier to achieve.

## **DoC camping ground**

The Department of Conservation (DoC) camping ground and Avoca Lodge water connection is currently being metered. This is only to ascertain how much the camping ground uses so further work can be done to determine how DoC will be charged for use of the water.

## **Access to the current water infrastructure**

Access for Council to the current supply is covered under the Local Government Act (LGA) for maintenance, replacement, and for emergency repairs and there are certain conditions on this access. We have recently found that access is also covered by the easement on the water pipe, reservoirs, and source.

## **Current water supply easement**

The existing easement for the pipelines, reservoirs, and source allows for 'the right to convey water' which is '*The right to take and convey water in free and unimpeded flow is limited to the extent required by any period of necessary cleansing, renewal, modification, or repair of the easement facility*'. This is held 'forever appurtenant'.

## **Land access for carrying out the water upgrade project**

The Ohau Water Supply Upgrade project is very likely to be over and above what the easement and the LGA allows, so it's very likely there will be no right of access to the land for the project. There is a process in the LGA for gaining access – this is detailed in the '*Design Memo following the Community Meeting – Fluent Solutions*' which is on Council's Website. This would take considerable time to undertake and the likelihood of success is considered to be fairly low.

## **Community drinking water taskforce**

As a result of the public meeting held on the 3<sup>rd</sup> January 2019, a community drinking water task force was formed to represent the community. Their purpose is to help us investigate and assess other options for the upgrade of the Ohau Water Supply and to answer any queries from the community.

**A design memo has been drafted to respond to some of the questions/issues raised at the public meeting held on the 3<sup>rd</sup> January 2019 at the Ohau Lodge. This is now on Council's website.**